

What is claimed is:

1. A reversible cosmetic composition selected from the group consisting of a thermochromic composition, a photochromic composition, and a mixture thereof.

2. A composition according to claim 1 further including a water-based, cosmetically-acceptable carrier.

3. A composition according to claim 1 that is thermochromic, whereby the composition comprises a thermoset resin, a cholesterol, water, and a dye.

4. A thermochromic composition according to claim 3 wherein the thermoset resin is selected from one or more of the group consisting of melamine-formaldehyde, urea formaldehyde, and urethane resins.

5. A thermochromic composition according to claim 3 whereby the composition comprises from about 20-40% by weight thermoset resin, from about 15-45% by weight cholesterol, from about 15-30% by weight water, and from about 10-30% by weight dye.

6. A composition according to claim 1 that is photochromic, said composition comprising a benzene and a binder.

7. A photochromic composition according to claim 6 whereby the composition comprises from about 10-60% by weight of the benzene, and from about 5-50% by weight binder.

8. A photochromic composition according to claim 6 further including one or more salts selected from the group consisting of potassium nitrate, sodium

nitrate, calcium nitrate, calcium citrate, sodium citrate, potassium citrate, aluminum nitrate, and silver nitrate.

9. A photochromic composition according to claim 6 whereby the benzene is azobenzene.

10. A composition according to claim 1 that is thermochromic and photochromic comprising a thermoset resin, cholesterol, water, dye, a benzene, and a binder.

11. A composition according to claim 1 that is shelf-stable for a time period of at least two years.

12. A composition according to claim 1 further including one or more ingredients selected from the group consisting of a light stabilizer, a buffer, a thermoset resin, and an auxiliary.

13. A composition according to claim 2 that is selected from the group consisting of a gel, mousse, solution, spray, lotion, and suspension.

14. A composition according to claim 1 having a pH in the range of about 6.8 to 7.2.

15. A method of changing the color of an animal's skin or hair in response to changes in light, temperature, or both, comprising:

applying a reversible cosmetic composition selected from the group consisting of a thermochromic composition, a photochromic composition, and a mixture thereof to a skin or hairy area on an animal; and

exposing the composition to a color-changing sufficient amount of at least one stimulus, said stimulus being selected from the group consisting of light, change in temperature, and mixtures thereof.

16. A method of manufacturing a reversible thermochromic cosmetic composition comprising:

combining a thermoset resin, cholesterol, water, and dye to form

thermochromic cells; and

heating the cells for a time period sufficient to cure the resin.

17. A method according to claim 16 further including the step of adding the cells to a cosmetically acceptable carrier.

18. A method according to claim 17 whereby the cells are added to the cosmetically acceptable carrier in a concentration of about 10-30% by weight.

19. A method of manufacturing a reversible photochromic cosmetic composition comprising:

combining a benzene with a binder to form photochromic cells.

20. A method of manufacturing a reversible thermochromic/photochromic composition comprising:

combining the thermochromic cells of claim 16 with the photochromic cells of claim 19.

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A' →

add
B' →